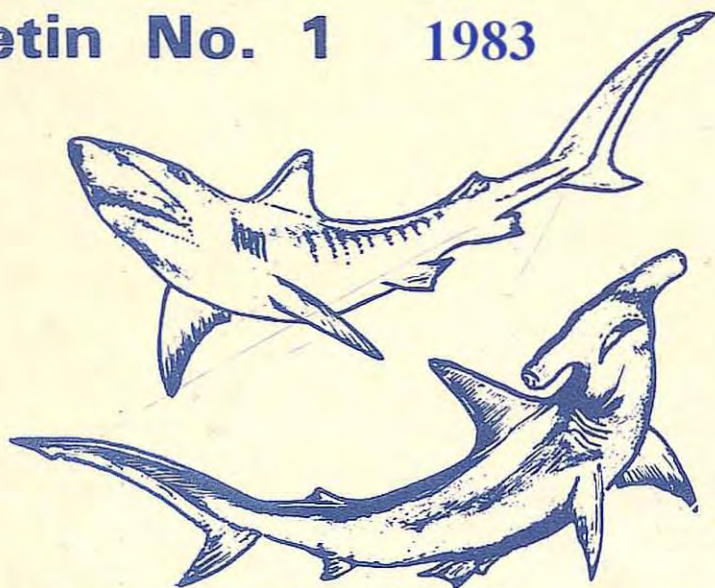


KENYA AQUATICA

Bulletin No. 1 1983



A BULLETIN OF
KENYA MARINE & FISHERIES
RESEARCH INSTITUTE

EDITORIAL NOTE

The need has been felt for a long time for a bulletin covering aquatic resources out-puts of the country quickly and comprehensively. The Board of Management of Kenya Marine and Fisheries Research Institute realised this need and directed the Institute to take immediate action for ensuring that information on aquatic resources is compiled for easy communication to the people.

The editorial group has decided to start reporting activities related to aquatic resources under the title "KENYA AQUATICA". As far as possible efforts will be made to include short scientific communications, critical reviews, seminar proceeding and other ad hoc publications. This comprehensive coverage will be possible only through cooperation of various Institutions, Departments, Societies and individuals who are concerned with aquatic resources.

Kenya Aquatica is a technical and extension series for rapid dissemination of information on aquatic resources and allied information from Research Officers, Fisheries Officers and any individual for transfer of Technology to the fishermen and industry and any other relevant information needed for National Development.

Editorial Group

R. M. Nzioka (Editor)
J. Ogari
J. I. Ochieng
E. O. Odada

We appeal to all concerned to send us regularly such publications, at the following address:

Director
Kenya Marine & Fisheries Research Institute,
P. O. Box 81651,
M O M B A S A

AQUATIC RESOURCES: AREAS OF COOPERATION

The exploration and exploitation of the sea and its resources by man have a long history of conflict and to some extent harmony and understanding. The future can bring only a deepening of this dichotomy. On the other hand scientific progress and technological advances can allow mankind to make efficient use of the sea and other waters, and its resources. It is definite though that this will only intensify confrontation among nations of the world over the exploration, search for knowledge, and subsequent exploitation of all the aquatic resources. It is to avoid such confrontation and achieve harmonized exploitation based on scientific information that effective international cooperation genuinely becomes very important.

To fully utilize the aquatic environment it has become increasingly necessary to understand the sea and its ecosystem. It is now evident that the aquatic environments, particularly the sea is more than just a common medium for fishing, transport, trade and shipping etc. and naval warfare which incidently it has witnessed for many years. The fundamental role which the ocean plays in the earth's weather, is just now beginning to be understood. In addition, the aquatic environment, both inland and the sea, is being endangered by various forms of pollution by man or otherwise.

An apparent awareness is being therefore raised everywhere for the need to do something: to understand an aquatic environment and protect it. There is awareness too that this environment, particularly the sea represent a vast reservoir of food, mineral resources and energy, which again needs rational balanced exploitation. The search for knowledge, aquatic research, is therefore one area of cooperation in which African countries would greatly benefit. The search for knowledge is increasingly becoming very expensive, and with the introduction of the exclusive economic zones, many of the developing coastal countries will not be in position to mount any meaningful research.

On fisheries resources in particular, there are fundamental factors which influence their fuller exploitation. It is perhaps true that the most important element, that influence marine fisheries are those related to the biological characteristics. Fish first of all are mobile and migrate over a certain range within a space of time and without any respect to man - made boundaries, guided only by the natural condition of the aquatic environment, e.g. currents, temperature, salinities etc. For the fish therefore the world is a three dimensional one. This three dimensional concept therefore to a very

large extent eliminates our own concept of ownership particularly with regards to migratory resources, especially tuna and other open water stocks.

The extension of jurisdiction and establishment of the exclusive economic zones have therefore a fundamental effect on the exploitation and management of fish resources. Many problems will definitely come as a result of the extended jurisdiction and some of these may be easier to solve, while others eg. management and exploitation of shared stocks may, because of technological factors (advancement of lack of means of exploitation) and political elements (exclusive and sovereign rights) will be difficult to solve. It is evident therefore that fisheries as an industry operate in a highly variable environment. Many stocks are fished by more than one country and their management obviously requires close coordination between countries concerned. If irrational exploitation is to be avoided. Although a full international cooperation among neighbouring countries remain elusive, there is a need nonetheless to initiate some forms of cooperation among African countries in particular and the world at large; a cooperation which will set in motion certain guidelines for rational exploitation of fish resources. Such guidelines will definitely involve the development of appropriate regulatory controls which in effective will harmonize management policies and strategies among African countries, specifically to avoid unplanned under utilization and over exploitation of the fish resources.

In addition to the need for cooperation in the field of research as discussed above, rational future exploitation, and therefore proper management, is dependent upon a data base from which trends in fisheries could be obtained. In a variable situation such as with the marine fisheries, collection of such data will in most cases be done individually by each country. Again for meaningful cooperation in planning and management, African countries will have to cooperate in the compilation of data collected individually or collectively. In addition there will be need at some stage to cooperate too in the analysis of such data.

One result of the extended jurisdiction and exclusion economic zone in the management and exploitation of fish resource, has been the interest shown by the developed countries to go into joint ventures with developing countries. Technological factors and availability of capital for initial input in the developed countries has meant that joint venture phenomenon, as a means of exploiting the extended zone has, in a way, been always forced on the developing countries. There is need though for the African countries to

look into the possibilities of going into joint ventures among themselves. Cooperation needed here is of utmost importance if African nations are to maximise the utilization of fish resources in their waters.

These discussions have mainly concentrated on the marine fisheries resources and very little has been said on the inland fisheries. This is deliberate. However the situation is not much different especially with case of common waters such as lakes Victoria, Tanganyika and Chad. In the cases of Lake Victoria, there is definitely an urgent need for a collective management arrangement to harmonize regulations needed for urge for a creation of a body or a working committee to look into the problems of Lake Victoria fisheries.

Definitely there are many areas which need cooperation among African nations. The exploitation, utilization and management of aquatic resources will if properly planned on cooperative basis go along way to alleviate poverty in Africa.

Allela Samuel